

25. A combinatorial high throughput screening (CHTS) method for selecting a luminescence material, comprising:

(A) (i) aspirating a candidate luminescence material precursor into a hollow tube by action of a plunger; (ii) dispensing said precursor into a well of an array plate by a positive displacement action of said plunger against said precursor; (iii) effecting a reaction of said precursor to form a candidate luminescence material; and (iv) evaluating said candidate luminescence material, wherein the luminescence material precursor is dispensed by displacement within a linear dynamic range of from greater than 5 nano-liter to about 250 micro-liter..

27. A combinatorial high throughput screening liquid dispensing assembly comprising a battery of positive displacement driven dispensers for dispensing solutions of precursor luminescence materials, an array plate with wells to receive dispensed solution from said dispenser, a robotic positioning table supporting said array plate to position wells beneath respective dispensers and a controller to control dispensing of said solutions and positioning of said plate, wherein said positive displacement dispensers have a capability of displacing viscous material of greater than 1 centipoise within a linear dynamic range of greater than 5 nano-liter to about 250 micro-liter.

Cancel claims 3, 7, 21, 22 and 31 without prejudice or disclaimer.